

**Cultural Resource Investigations for the Idaho Spent  
Fuel Facility at the Idaho National Engineering and  
Environmental Laboratory**

**Brenda Ringe Pace**

**Published March 2001**

**Idaho National Engineering and Environmental Laboratory  
Cultural Resource Management Office  
Idaho Falls, Idaho 83415**

**Prepared for the  
U.S. Department of Energy  
Assistant Secretary for Environmental Management  
Under DOE Idaho Operations Office  
Contract DE-AC07-94ID13223**

## **ABSTRACT**

The U.S. Department of Energy proposes to construct a new facility for managing spent nuclear fuel at the Idaho National Engineering and Environmental Laboratory (INEEL). The Idaho Spent Fuel Facility (ISFF) will be designed, licensed, constructed, and operated by the Foster-Wheeler Environmental Corporation (FWENC). The preferred location for construction of this new facility is adjacent to the Idaho Nuclear Technology and Engineering Center, an existing INEEL facility. Cultural resource investigations of this proposed construction site and the surrounding historic landscape indicate that the proposed project will have no effect on significant cultural resources.

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## **ABBREVIATIONS AND ACRONYMS**

ACHP	Advisory Council on Historic Preservation
CFR	Code of Federal Regulations
CRM	Cultural Resource Management
DOE-ID	Department of Energy, Idaho Operations Office
DOI	Department of Interior
FWENC	Foster Wheeler Environmental Corporation
IMACS	Intermountain Antiquities Computer System
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
ISFF	Idaho Spent Fuel Facility
NPS	National Park Service
NRC	Nuclear Regulatory Commission
NRHP	National Register of Historic Places
SHPO	State Historic Preservation Office
US	United States

# **Cultural Resource Investigations for the Idaho Spent Fuel Facility at the Idaho National Engineering and Environmental Laboratory**

## **1. INTRODUCTION**

The following report documents investigations to identify and assess cultural resources that might be impacted by activities associated with the construction of a new storage and packaging facility for spent nuclear fuel, the Idaho Spent Fuel Facility (ISFF), on the Idaho National Engineering and Environmental Laboratory (INEEL) in southeastern Idaho. The report follows a specific format preferred by the Idaho State Historic Preservation Office (SHPO) (Idaho SHPO 1995).

## **2. PROJECT DESCRIPTION**

### **2.1 Description of Project and Potential Impacts**

The INEEL is an 890 square mile federal reserve covering portions of five counties on the northeastern edge of the Snake River Plain in southeastern Idaho. The INEEL lands are under the jurisdiction of the U.S. Department of Energy, Idaho Operations Office (DOE-ID), and have been gradually set aside since the 1940s, through withdrawal and purchase, for scientific and engineering research. The vast land holding has also been designated as a National Environmental Research Park, dedicated to the study of the environmental impacts of energy research. Recently, approximately 74,000 acres of high desert terrain within the Laboratory were designated as an INEEL Sagebrush Steppe Ecosystem Reserve, recognizing the undisturbed nature of the area and the many resources present within.

There are eleven main operational facility areas at the INEEL (Map 1, Appendix C). The proposed area for construction of the ISFF is adjacent to the Idaho Nuclear Technology and Engineering Center (INTEC) in the south-central portion of the Laboratory. INTEC, formerly the Idaho Chemical Processing Plant (ICPP), is a multipurpose plant originally constructed in 1951. Throughout its long operational history, INTEC has successfully received and stored spent nuclear fuels, processed those fuels to recover uranium-235, and managed the waste generated by those functions. In 1992, the spent fuel processing mission was terminated. INTEC's current mission is to receive and temporarily store spent nuclear fuel and waste fission products.

The proposed ISFF will be the newest facility devoted to the interim storage of spent nuclear fuel. The proposed location of the new facility is adjacent to a small complex of existing office buildings, warehouses, and trailers immediately to the east of the INTEC perimeter fence and north of INTEC's coal-fired power plant (Map 2, Appendix C). The ISFF will receive spent nuclear fuel stored within the INEEL complex and transfer this fuel into storage canisters designed to meet the acceptance criteria for the proposed national repository at Yucca Mountain, Nevada. The Nuclear Regulatory Commission (NRC) will license the ISFF and the receipt, transfer, and storage of this fuel will be under their jurisdiction.

Members of the INEEL Cultural Resource Management (CRM) Office reviewed archaeological survey records and cultural resource inventories to determine if the activities associated with the construction of this new facility will cause any impacts to cultural resources, particularly those exhibiting potential for nomination to the National Register of Historic Places (NRHP). The results of these efforts are summarized in this report.

### **2.2 Area of Potential Effects**

There are two distinct, but related, areas of potential effect for the ISFF project (Map 3, Appendix C). The first area is the proposed ISFF construction site, which is an 8-acre parcel bounded on the west by INTEC's East Perimeter Road, on the north by Spruce Avenue, on the east by Balsa Street, and on the

south by a large ash pit associated with INTEC's coal-fired power plant. The second area of potential effects is the construction laydown area located a short distance to the northeast of the proposed ISFF site. It is a 4-acre construction laydown area to support the project. Both parcels are east of the main INTEC facility and south of a small concentration of offices and other structures, permanent and temporary, which are also peripheral to the main facility.

Ground disturbance associated with construction of the ISFF and other temporary support facilities will be localized but extensive in both areas. No modifications to existing structures or buildings within the INTEC facility are planned.

## 2.3 Project Acreage

NAME OF AREA	PROJECT ACREAGE	ARCHAEOLOGICAL SURVEY COVERAGE
Idaho Spent Fuel Facility	~ 8 acres	> 8 acres
Construction Laydown Area	~ 4 acres	> 4 acres

## 2.4 Landowner(s)

The U.S. Department of Energy, Idaho Operations Office (DOE-ID) and DOE-ID's prime contractor, now Bechtel BWXT, Idaho, LLC, jointly administer most INEEL lands, excluding those that are within the Naval Reactors Facility and Argonne National Laboratory-West. Within certain grazing areas on the INEEL, generally located near the outer boundaries of the Laboratory, administration is also shared with the Bureau of Land Management, Idaho Falls District, who issues all permits and takes responsibility for environmental compliance associated with grazing activities. The proposed ISFF is located within the area administered by DOE-ID. The new facility will be built and operated by Foster Wheeler Environmental Corporation (FWENC), under lease with the DOE-ID. In recognition of the value of a consolidated approach, all cultural resource investigations are managed and coordinated through the INEEL Cultural Resource Management (CRM) Office, currently within Bechtel BWXT, Idaho, LLC.

# 3. STATEMENT OF OBJECTIVES FOR INVESTIGATION

## 3.1 Description of Area Investigated

The cultural resource investigations reported herein were conducted to satisfy three basic and interrelated goals:

1. to identify and evaluate cultural resources within the areas of potential effect for construction of the ISFF,
2. to conduct a preliminary assessment of the potential impact of construction activities on any identified cultural resources, and
3. to develop preliminary avoidance strategies, monitoring plans and/or data recovery plans if necessary to avoid any adverse effects to identified cultural resources and particularly those that are eligible or potentially eligible for nomination to the National Register of Historic Places.

## 3.2 Amount and Types of Information Collected

All cultural resources investigations on the INEEL must meet the Secretary of the Interior's standards under 36 CFR 800, as well as the requirements outlined in the draft INEEL Cultural Resources Management Plan (Braun et al. 2000). Ground disturbing projects on the INEEL are preceded by several types of data collection including: CRM archive searches, archaeological reconnaissance surveys in previously examined areas, and/or intensive archaeological surveys in areas that have never been

systematically inventoried for cultural resources. All of these activities are designed to identify cultural resources in the area(s) of potential effect for the proposed activities. In some instances, consultation with the Shoshone-Bannock Tribes is also needed to identify resources of traditional cultural or religious importance.

INEEL CRM archive searches clearly indicate that both areas of potential effect for the proposed ISFF have been subject to repeated intensive archaeological surveys, so additional field activities were not deemed necessary. The archives also demonstrate that neither of the areas of potential effect for the project contain any historic architectural properties, nor are any historic buildings located in the immediate vicinity. Finally, the lack of archaeological resources and highly disturbed nature of the proposed construction area and construction laydown area also indicate that no sensitive tribal resources are present, so no special communications (beyond the standard review process for this report) were conducted with the with the Shoshone-Bannock Tribes.

## 4. LOCATION AND GENERAL ENVIRONMENTAL SETTING

### 4.1 Legal Locations

The INTEC and proposed construction site for the ISFF are located in the south-central portion of the INEEL in Butte County approximately 50 miles west of Idaho Falls, Idaho. Appendix C contains a variety of visuals including:

- a map showing the location of INTEC and the ISFF in relation to INEEL boundaries and other facilities (Map 1),
- a plot-plan of the proposed ISFF in relation to roads and buildings at INTEC (Map 2),
- a partial 7.5' topographic map showing the specific locations of the areas of potential effect (Map 3), and
- the same topographic map showing these areas in relation to archaeological survey coverage and known archaeological sites (Maps 4 and 5).

The specific legal locations for the ISFF construction site and associated construction laydown area are:

NAME OF AREA	LEGAL LOCATION	7.5' MAP
Idaho Spent Fuel Facility	SE ¼, SW ¼, Sec. 19, T3N, R30E	Circular Butte 3 SW, Idaho
Construction Laydown Area	NE ¼, SE ¼, SW ¼, Sec. 19, T3N, R30E	Circular Butte 3 SW, Idaho

### 4.2 Setting

The INEEL is located in the high cool desert environment of the northeastern Snake River Plain. Within the 890 square mile complex, aeolian, alluvial, and lacustrine sediments of varying thicknesses overlie basaltic lava flows. The Big Lost River flows in a northeasterly direction from the southwestern corner of the Laboratory to eventually terminate in a series of natural sinks near the foothills of the Lemhi Mountains. An extensive floodplain follows the course of the River and in the vicinity of the sinks, a myriad of channels is cut into the bed of Pleistocene Lake Terreteon. Vegetation is generally sparse throughout the INEEL and dominated by a community of low shrubs like sage and rabbitbrush, a wide variety of grasses and forbs, and occasional juniper trees. Many animals make their homes in this sagebrush grassland including proghorn, deer, elk, coyotes, badgers, rabbits, many birds including raptors, game birds, and waterfowl, a wide variety of small rodents, and several types of small reptile.

For human populations, the area has always had much to offer. For Native American hunter-gatherers who probably utilized the area on a seasonal basis for more than 12,000 years, game animals and useful plants were found in abundance and nearby Big Southern Butte was attractive for the obsidian tool stone that outcrops near it's crest. Within the last 150 years, emigrants began to pass through the area along a northern spur of the Oregon Trail (Goodale's Cutoff). Soon thereafter, early homesteaders sought to

harness the fickle flows of the Big Lost River and transform sagebrush flats into green pastures. Few were successful, but the failure of their efforts opened the area for use of another kind. The remote and largely uninhabited expanse of the northeastern Snake River Plain was well suited for the test firing of guns and ordnance testing in support of US military applications. Then, after 1949, the INEEL was designated as the National Reactor Testing Station and became an ideal testing ground for the developing U.S. nuclear research program. The Laboratory has filled a similar role for more than 50 years, ultimately influencing nearly every power reactor in the world particularly in regard to design and safety.

Both areas of potential effect for construction of the ISFF are located on the Big Lost River floodplain just southeast of the main channel of the Big Lost River. In this physiographic zone, alluvial gravels from the River cover a broad expanse nearly six kilometers wide. Basalt lava flows border the floodplain on the southeast and northwest. Close to INTEC and throughout the floodplain, the topography is relatively featureless. Flat expanses of alluvial gravel are broken only by occasional isolated sand dunes and abandoned channels and even these features are rare around INTEC. Elevations consistently average approximately 4,920 ft above sea level and vegetation is dominated by low shrubs such as sage and rabbitbrush along with a variety of native grasses.

## 5. PRE-FIELD RESEARCH

### 5.1 Sources of Information Checked

<input checked="" type="checkbox"/> General Overviews	<input type="checkbox"/> Ethnographic studies
<input type="checkbox"/> National Register	<input checked="" type="checkbox"/> Historic records/maps
<input checked="" type="checkbox"/> Archaeological site records/maps	<input type="checkbox"/> Interviews
<input checked="" type="checkbox"/> Architectural site records/maps	<input checked="" type="checkbox"/> INEEL CRM Files
<input checked="" type="checkbox"/> Survey records	<input type="checkbox"/> Other

### 5.2 Summary of Previous Investigations

The INEEL CRM Office maintains a complete record of all cultural resource investigations conducted on the INEEL. Less detailed records are maintained for reconnaissance-level investigations completed before 1984. Of particular importance are the inventories of archaeological and architectural properties with potential for nomination to the National Register of Historic Places produced during intensive surveys over the past two decades. Archaeological sensitivity maps based on a preliminary predictive model (Ringe 1995), maps and survey notes from original land surveys of the INEEL area, and sensitive records of resources that are of continuing importance to the Shoshone-Bannock Tribes are also housed at this Office.

A check of the INEEL CRM archives revealed that both of the areas of potential effect for ISFF construction east of INTEC had been repeatedly subject to intensive archaeological survey with negative results. The archive search also showed that no historic architectural properties are located within or even near the areas of potential effect for ISFF construction. Finally, due to a high level of modern disturbance and low archaeological sensitivity, the archive review indicated a low probability of encountering resources of interest to the Shoshone-Bannock Tribes.

Archaeological survey coverage in the vicinity of INTEC is quite expansive (Map 4, Appendix C). The earliest surveys conducted there, from 1979 – 1984, relied on methodologies typically less stringent than those required today. The first was conducted in 1979 when B. R. Butler inspected 111 acres of the area now enclosed by the INTEC perimeter fence (Butler 1979). No cultural resources were recorded during this original survey. In 1981, S. J. Miller (Miller 1985) conducted a cultural resources inventory of approximately nine acres proposed for the coal-fired steam generation plant immediately south of the proposed ISFF construction area on the east side of the facility as well as several additional project areas to the south and west. No cultural resources were identified in any of these areas, however one historic homestead (10-BT-269) was identified in an undisturbed area some distance to the north. Archaeological survey coverage surrounding INTEC was significantly expanded by the Swanson/Crabtree Anthropological Research Laboratory in 1985 (Reed et al. 1987a), 1986 (Reed et al. 1987b), and 1989

(Ringe 1989); more than 1000 acres surrounding the facility were encompassed by these surveys. Most of the six cultural resources identified during this effort were related to agricultural pursuits spurred by the Carey Land Act of 1894. Only two isolates (10-BT-1244 and 10-BT-1245) are located in the vicinity of the proposed ISFF project.

Periodically over the past decade, the INEEL CRM Office has revisited the eastern perimeter zone of the INTEC to verify that no archaeological resources are present there and to relocate the historic homestead (10-BT-269) for avoidance. In FY2000 alone, the area was monitored on four separate occasions. In each case, the negative results of previous surveys were verified. No archaeological resources have ever been identified within the areas of potential effect for the ISFF project.

During more than 50 years of operational history, INTEC has been the site of a number of significant advances in the science of spent fuel storage and processing as well as waste management (Stacey 2000). Several facilities located there are eligible for nomination to the National Register because of these important contributions (Arrowrock 1997, Stacey 1998, Pace and Braun 2000). No existing buildings or structures are located within the areas of potential effect for the ISFF project and all of the buildings and structures located in the vicinity were constructed after 1980. None are eligible for the National Register.

The proposed construction and laydown areas associated with the ISFF have been subject to intensive ground disturbance over the past five decades. Nonnative plant species are dominant and no unique topographic features (i.e. buttes, river channels, sand dunes, etc.) are present. These factors combine to decrease the likelihood that these areas contain resources of special importance to the Shoshone-Bannock Tribes.

### **5.3 Evaluation of Previous Investigations**

Both areas of potential effect for the ISFF project have been intensively investigated for cultural resource concerns. Original intensive archaeological surveys from the 1980s, subsequent archaeological reconnaissance by the INEEL CRM Office, historic building inventories and lists of other structures, and previous and ongoing consultation with the Shoshone-Bannock Tribes have combined to ensure that all significant cultural resources with visible surface remains in the area have been identified. To date, none have been found within the areas of potential effect for the ISFF project.

## **6. EXPECTED HISTORIC AND PREHISTORIC LAND USE AND SITE DENSITY**

### **6.1 Known Cultural Resources**

Despite the intensive surveys, few cultural resources have been identified in the vicinity of INTEC. On the eastern side of the facility, where the ISFF will be constructed, only three archaeological localities have been identified. Two of these are isolated finds unlikely to be eligible for nomination to the National Register (10-BT-1244 and 10-BT-1245), but the single historic homestead (10-BT-269) also located in this area exhibits potential for nomination. Importantly however, all of these resources are located outside of the areas of potential effect for the ISFF project and should not be affected (Map 5, Appendix C).

### **6.2 Expected Cultural Resources**

Cultural resources are widespread and numerous across the entire INEEL. However, previous surveys conducted on the Big Lost River floodplain near INTEC have revealed a low density of archaeological sites and other cultural resources. Given these results, additional archaeological sites and isolates from the historic and prehistoric periods were not expected to occur and sensitive tribal resources were considered to be unlikely.

### 6.3 Known or Expected Distribution of Cultural Resources

No additional cultural resources are expected to occur within previously surveyed areas. In unsurveyed areas, archaeological sites are expected to occur in frequencies and distributions similar to those previously observed.

### 6.4 Known or Expected General Themes and Time Periods

THEMES		TIME PERIODS
<input checked="" type="checkbox"/> Archaeology	<input type="checkbox"/> Military	<input checked="" type="checkbox"/> Prehistoric
<input checked="" type="checkbox"/> Agriculture	<input type="checkbox"/> Mining	<input checked="" type="checkbox"/> Historic Native American
<input type="checkbox"/> Architecture	<input checked="" type="checkbox"/> Native Americans	<input type="checkbox"/> Exploration: 1805-1860
<input type="checkbox"/> Civilian Conservation Corps	<input type="checkbox"/> Politics/Government.	<input checked="" type="checkbox"/> Settlement: 1855-1890
<input type="checkbox"/> Commerce	<input type="checkbox"/> Public Land Management	<input checked="" type="checkbox"/> Statehood: 1890-1904
<input type="checkbox"/> Communication	<input type="checkbox"/> Recreation/Tourism	<input checked="" type="checkbox"/> Statehood: 1904-1920
<input type="checkbox"/> Culture and Society	<input checked="" type="checkbox"/> Settlement	<input type="checkbox"/> Interwar: 1920-1940
<input type="checkbox"/> Ethnic heritage	<input type="checkbox"/> Timber	<input type="checkbox"/> Pre-Modern: 1940-1958
<input type="checkbox"/> Exploration/Fur Trade	<input checked="" type="checkbox"/> Transportation	<input type="checkbox"/> Modern: 1958-present
<input type="checkbox"/> Industry	<input type="checkbox"/> Other	

### 6.5 Known or Expected INEEL Contexts

<input checked="" type="checkbox"/> Prehistoric Native American: 15,000 – 150 BP	<input type="checkbox"/> Ordnance Testing, Naval Proving Ground: 1942 – 1949	<input type="checkbox"/> Nuclear Reactor Testing, Development: 1955 – 1970
<input checked="" type="checkbox"/> Historic Native American: 150 BP - present	<input type="checkbox"/> Ordnance Testing, Vietnam War: 1968 – 1970	<input type="checkbox"/> Post Nuclear Reactor Research: 1971 – present
<input checked="" type="checkbox"/> Euroamerican Contact/Settlement: 1805 - 1942	<input type="checkbox"/> Nuclear Reactor Testing, Establishment: 1949 – 1971	<input type="checkbox"/> Remediation of Nuclear Waste: 1971 – present

## 7. METHODS OF INVESTIGATION

### 7.1 Field Techniques

All work during the cultural resources investigations for the proposed ISFF project was performed in a manner consistent with formal and informal standards and guidelines issued by the Idaho State Historic Preservation Office (SHPO), the Advisory Council on Historic Preservation (ACHP), the National Park Service (NPS), and Department of Interior (DOI) as outlined in DOE-ID's draft INEEL Cultural Resources Management Plan (Braun et al. 2000). No new field activities were necessary to identify cultural resources and evaluate the potential effects of ISFF construction on them.

### 7.2 Surface Conditions

No fieldwork was conducted for the ISFF cultural resources investigation. During previous investigations, ground visibility in the area was unobscured.

### 7.3 Areas Not Examined

All areas proposed for ground disturbance during ISFF construction have been intensively surveyed through previous efforts.

### 7.4 Field Personnel

No fieldwork was conducted for this project.

## **7.5 Dates of Fieldwork**

No fieldwork was conducted for this project.

## **7.6 Problems Encountered**

No problems were encountered.

# **8. RESULTS**

## **8.1 All Cultural Resources Identified in the Area of Potential Effects**

Archive searches revealed no cultural resources within the previously surveyed areas of potential effect for the ISFF project. Only three archaeological localities are nearby. Two are isolated artifacts unlikely to yield any additional information and evaluated as ineligible for nomination to the National Register and one is a historic homestead that is evaluated as eligible for nomination. Again, all are outside the areas of potential effect for the ISFF project.

## **8.2 Cultural Resources Noted but Not Recorded:**

Intensive surveys have revealed no cultural resources within the areas of potential effect for the ISFF project. All cultural resources with visible surface remains in the vicinity have been recorded.

## **8.3 Summary of Important Characteristics of Identified Resources**

No cultural resources are located within the areas of potential effect for ISFF construction.

## **8.4 National Register Eligibility**

No cultural resources are located within the areas of potential effect for ISFF construction.

## **8.5 Recommendations for Further Investigations**

No further cultural resource investigations are recommended in advance of ISFF construction. However, if cultural resource materials are unexpectedly encountered during project activities, FWENC employees are authorized to stop work and immediately contact the INEEL CRM Office for assistance. Additional investigations will be initiated in this unlikely event. Ongoing monitoring efforts of active project areas, (INEEL facility perimeters, known archaeological sites, etc.) by the INEEL CRM Office should also help to ensure that any newly exposed resources are discovered and protected in a timely and appropriate fashion.

# **9. CONCLUSIONS AND RECOMMENDATIONS**

## **9.1 Summary of Investigations**

Cultural resource investigations completed to determine if the proposed ISFF project will have any effect on significant cultural resources were limited to archive searches. The INEEL CRM Office is confident that all cultural resources within the project area were identified through previous survey and consultation. Since no cultural resources have been identified in the areas of potential effect for the project, it is clear that ISFF construction will have no effect on significant properties.

## **9.2 Potential Threats to the Integrity of Identified Properties**

The proposed ISFF project is expected to have no effect on significant cultural resources.

## **9.3 Relationship of Identified Properties to Project Impacts**

There are no potential threats to any cultural resources, particularly those properties that are eligible or potentially eligible for nomination to the National Register, as a result of the proposed construction of the ISFF adjacent to INTEC.

## **9.4 Avoidance or Mitigation Options**

No avoidance or mitigation is necessary because the proposed activities will have no effect on significant cultural resources.

## **9.5 Recommendations for Additional Investigations or Protection Measures**

No additional work or protective measures are recommended in advance of construction activities associated with the ISFF project east of INTEC. INEEL facility perimeters, like the one at INTEC where this project is located are routinely sampled for archaeological monitoring. These ongoing investigations should ensure that any unexpected impacts to sensitive properties as a result of the new construction or any other INEEL program will be identified in a timely fashion and mitigated as appropriate. Observance of the INEEL Stop Work Authority, which authorizes all INEEL employees (including those working at the ISFF) to stop work if cultural resources are unexpectedly discovered at any time and in any place on the INEEL, should also ensure that resources are protected from inadvertent harm.

## **10. REPOSITORY**

Southeastern Idaho Regional Archaeological Center, Idaho Museum of Natural History, Idaho State University, Pocatello, Idaho. Records are also maintained and artifacts may be temporarily stored at the INEEL CRM Office, Bldg IF-601, 2251 N. Blvd, Idaho Falls, Idaho.

## **11. REFERENCES**

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## APPENDIX A: Key Information

- A. Project name:**  
Idaho Spent Fuel Facility
- B. Project number:**  
BBWI-2001-09
- C. Agency name:**  
INEEL Cultural Resource Management Office for Foster Wheeler Co. for the Department of Energy  
Idaho Operations Office
- D. Report author:**  
Brenda Ringe Pace
- E. Principal Investigator:**  
Brenda Ringe Pace
- F. Report date:**  
March 12, 2001
- G. County:**  
Butte County
- H. Legal locations:**

NAME OF AREA	LEGAL LOCATION	7.5' MAP
Idaho Spent Fuel Facility	SE ¼, SW ¼, Sec. 19, T3N, R30E	Circular Butte 3 SW, Idaho
Construction Laydown Area	NE ¼, SE ¼, SW ¼, Sec. 19, T3N, R30E	Circular Butte 3 SW, Idaho

9. **Survey acreage:** (Note: project involved no new intensive survey).

0 acres	<b>Intensive (20 meter interval)</b>
0 acres	<b>Reconnaissance (&gt; 20 m interval)</b>
> 18 acres	<b>Previously surveyed (intensive)</b>
0 acres	<b>Previously surveyed (reconnaissance)</b>

## **APPENDIX B: Certification of Results**

### **CERTIFICATION OF RESULTS:**

**I certify that this investigation was conducted and documented according to Secretary of Interior's Standards and Guidelines and that this report is complete and accurate to the best of my knowledge.**

**Original signed by B.R. Pace**

**Signature of Principal Investigator**

**Date**

## **APPENDIX C: Project Maps**

Appendix C contains a variety of maps. One of them shows the locations of cultural resources in the vicinity of the Idaho Nuclear Technology and Engineering Center and proposed Idaho Spent Fuel Facility. The locational information presented in this particular map is distributed for Official Use Only and may have been removed from some versions of the document. It is exempted from the Freedom of Information Act under Section 9 of the Archaeological Resources Protection Act of 1979 (as amended) and under Section 304 of the National Historic Preservation Act of 1966 (as amended). Distribution of any cultural resource locational information from this document and particularly from this Appendix must be approved in advance by contacting the INEEL CRM Office, PO Box 1625-2105, Idaho Falls, ID 83415, telephone: (208) 526-0916.

The following maps are included here:

Map 1: General location of the Idaho Nuclear Technology and Engineering Center and proposed Idaho Spent Fuel Facility on the Idaho National Engineering and Environmental Laboratory.

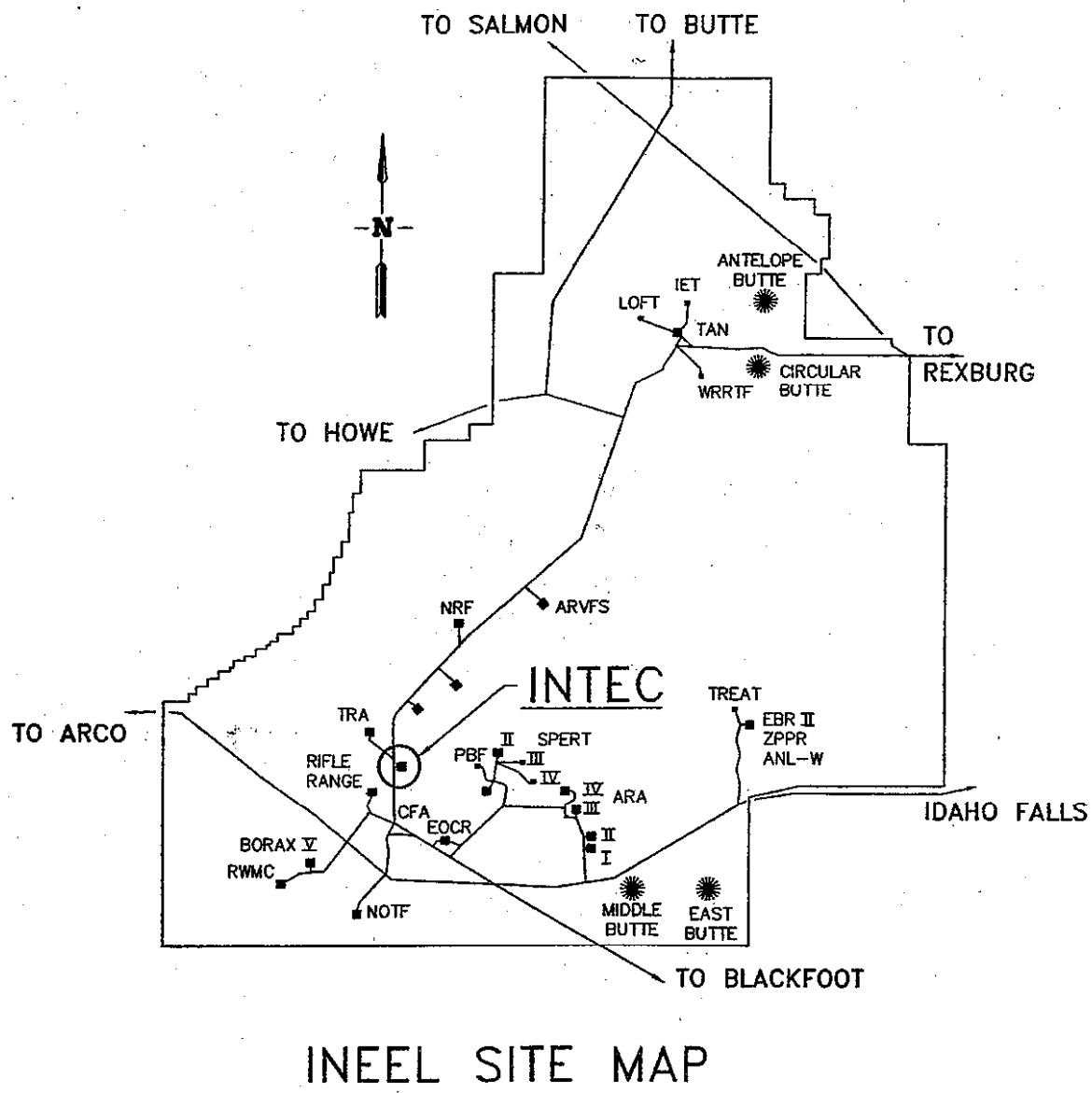
Map 2: Plot plan of the proposed Idaho Spent Fuel Facility and associated construction laydown area east of the Idaho Nuclear Technology Center.

Map 3: Partial 7.5' topographic map (Circular Butte 3SW) showing the two areas of potential effect for the Idaho Spent Fuel Facility project.

Map 4: Partial 7.5' topographic map (Circular Butte 3SW) showing previous archaeological survey coverage in the vicinity of the Idaho Nuclear Technology and Engineering Center and proposed Idaho Spent Fuel Facility.

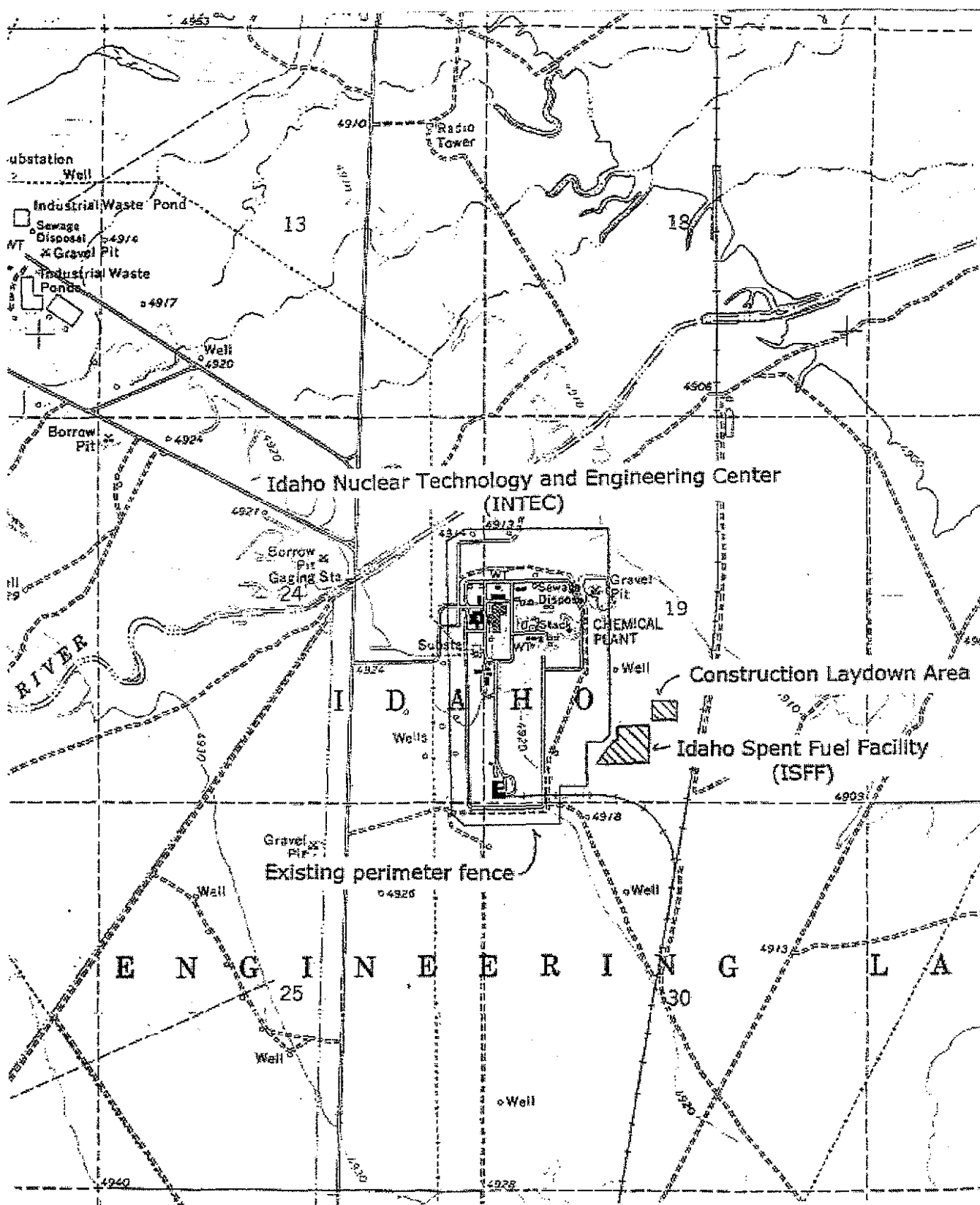
Map 5: Partial 7.5' topographic map (Circular Butte 3SW) showing the areas of potential effect for the Idaho Spent Fuel Facility project in relation to known cultural resources in the vicinity. For Official Use Only.

Map 1: General location of the Idaho Nuclear Technology and Engineering Center and proposed Idaho Spent Fuel Facility on the Idaho National Engineering and Environmental Laboratory.

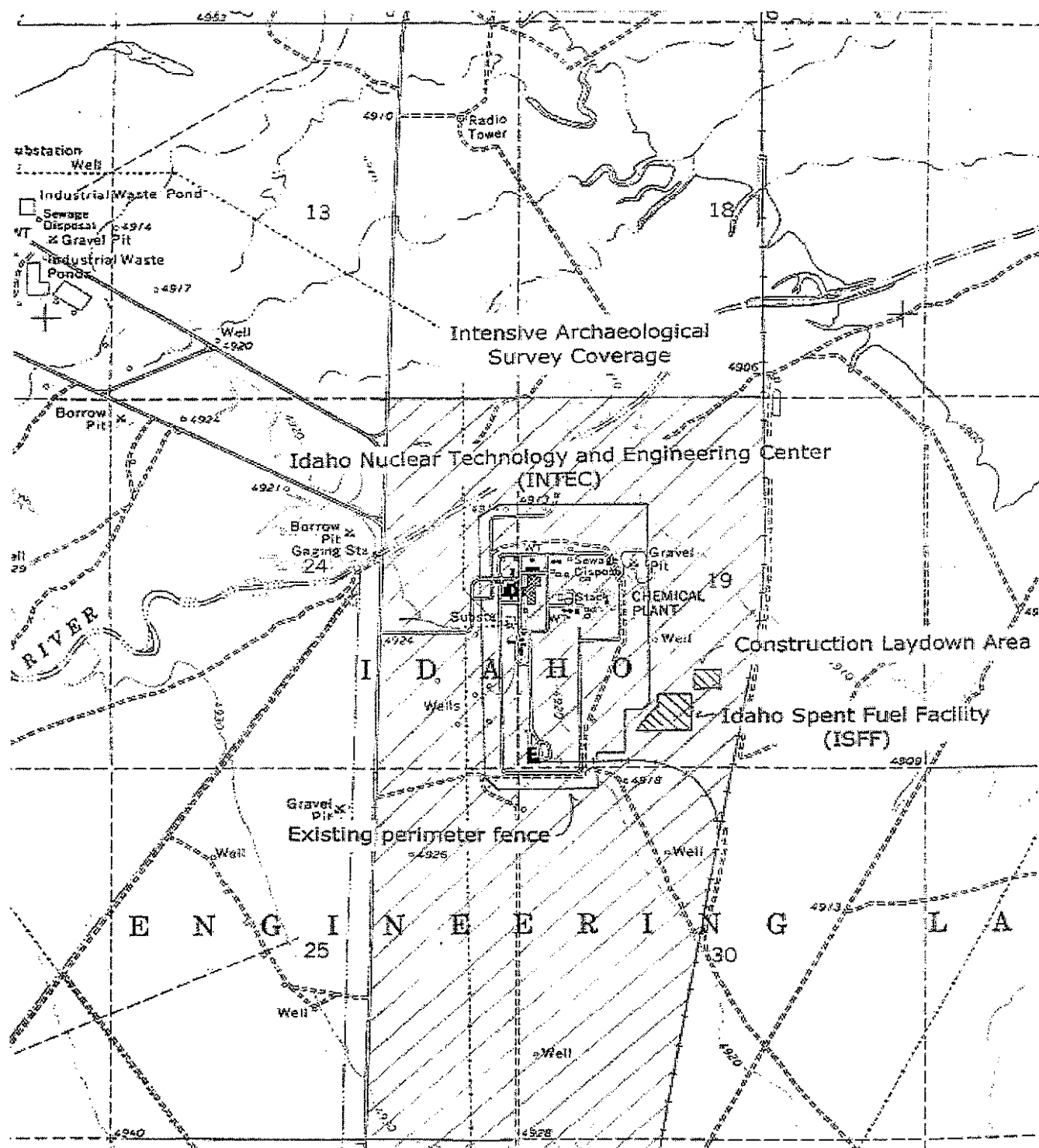


[illegible]

Map 3: Partial 7.5' topographic map (Circular Butte 3SW) showing the two areas of potential effect for the Idaho Spent Fuel Facility project.



Map 4: Partial 7.5' topographic map (Circular Butte 3SW) showing previous archaeological survey coverage in the vicinity of the Idaho Nuclear Technology and Engineering Center and proposed Idaho Spent Fuel Facility.



Map 5: Partial 7.5' topographic map (Circular Butte 3SW) showing the areas of potential effect for the Idaho Spent Fuel Facility project in relation to known cultural resources in the vicinity. For Official Use only.

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